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This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. *(currently amended)*   A method for generating a parts catalog <u>of a product from three dimensional data and a parts list of the product, wherein the</u> parts catalog <u>comprises the parts list</u> and ~~corresponding~~ a disassembled illustration <u>of the product; said three dimensional data comprising assembly structure information of the product; and the parts list being a list of parts or partially assembled parts of the product and being defined by a user independently from the assembly structure information;</u>

~~The~~ <u>the</u> method comprising the steps of

(a)   assigning a reference numeral/~~symbols~~ <u>symbol to said parts and partially assembled parts</u> ~~based on~~ in the parts list~~, to each of parts groups belonging to an initial process of disassembly, and to each of parts groups belonging to an intermediate process of disassembly, respectively~~;

(b)   building a disassembly algorithm based on said parts list; and

(c)   generating disassembly illustrations based on said disassembly algorithm, wherein <u>maximal disassembled states in</u> ~~minimum disassembly units of~~ the disassembly illustrations are <u>the</u> parts and ~~parts groups~~ <u>partially assembled parts</u> assigned with said reference numeral/symbols, and displaying said reference numeral/symbol for each of the parts and ~~parts groups~~ <u>partially assembled parts</u> in the disassembly illustrations.

2. *(cancelled)*

3. *(currently amended)*   The method of Claim 1, wherein the parts list includes <u>disassembly</u> definition information ~~of dependency relationships among parts and group relationships among groups, and~~ comprising a tree structure consisting of <u>a</u> nodes and leaves, ~~which are~~ <u>said node being a process</u> ~~processes~~ and <u>said leave being a part</u> ~~parts~~ <u>or a partially assembled part</u>, ~~respectively,~~ wherein ~~each of the~~

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said node ~~nodes~~ comprises a basic process and <u>optionally</u> an intermediate process performed in said basic process, and wherein a <u>partially assembled part consisting of parts to be disassembled or assembled in the intermediate process,</u> ~~each of the leaves consists of a process parts group for grouping a plurality of parts or parts groups, and said parts or parts groups.~~

4. *(currently amended)* The method of Claim ~~4~~ <u>3</u>, wherein said step (b) generates the disassembly algorithm by adding to the parts list, ~~a moving~~ <u>movement</u> coordinate <u>systems</u> ~~system~~ of said basic process and said intermediate <u>processes</u> ~~process~~, and a ~~moving~~ <u>movement</u> positions of the parts or <u>the partially assembled</u> parts ~~groups and the process parts group along~~ <u>within</u> said ~~a moving~~ <u>movement</u> coordinate <u>systems</u> ~~system, that are determined~~ based on the <u>disassembly definition information of</u> said parts list.

5. *(cancelled)*

6. *(currently amended)* The method of Claim 4, wherein in said step (b), <u>for the purpose of generating the disassembly algorithm</u> a shape of each of the parts is approximated with a circumscribing polygon thereof, and <u>said</u> ~~moving~~ <u>movement</u> position is set such that each polygon is at a minimum distance from each other which is greater than a predetermined ratio.

7. *(original)* The method of Claim 1, further comprising the step of (d) modifying the disassembly algorithm and illustrations after generating the disassembly illustrations.

8. *(currently amended)* The method of Claim 7, wherein said step (d) modifies each of the disassembly illustrations by modifying a position, a bearing or a scale of each of the parts <u>or partially assembled parts</u> ~~or parts groups for each of the basic process, the intermediate processes and connecting processes connecting the basic and intermediate processes, wherein the basic, intermediate and connecting processes constitute the disassembly definition information~~.

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9. *(currently amended)*   The method of Claim 8, wherein said step (d) generates and presents a user interface for modifying the position, bearing or scale for each of the parts or ~~parts groups~~ partially assembled parts.

10. *(original)* The method of Claim 8, wherein said step (d) permits modification of a camera view point information to modify the disassembly illustration.

11. *(currently amended)*   The method of Claim 8, wherein said step (d) modifies the disassembly illustration by determining an interference among the parts or partially assembled parts ~~groups~~ during ~~the movements~~ a movement thereof ~~for each of the basic, intermediate and the connecting processes, wherein the basic, intermediate and connecting processes constitute the disassembly definition information~~, and by modifying the position, bearing or scale for each of the parts ~~or parts groups~~ in the processes.

12. *(currently amended)*   The method of Claim 11, wherein said interference among the parts or partially assembled parts ~~groups~~ during the movement ~~movements~~ thereof is determined by calculating ~~the~~ an interference among respective polygons, each of which circumscribes ~~circumscribed~~ around each of the parts or partially assembled parts ~~groups~~.

13. *(currently amended)*   The method of Claim 1, wherein
said step (c) comprises the step of drawing a lead line from each of parts and partially assembled parts ~~groups~~ within the disassembly illustration in order to display said reference numeral/symbol, wherein
said step of drawing a lead line projects a movement vector from a pre-disassembly position to a post-disassembly position for said parts and partially assembled parts ~~groups~~, onto a plane perpendicular to a view point vector from a view point, and draws said lead line for said reference numeral/symbol from a post-

movement object along an axis direction of a shorter component of analyzed vector components constituting such a projected vector.

14. *(currently amended)*   A computer software program for generating a parts catalog <u>of a product from three dimensional data and a parts list of the product,</u> in a computer system<u>: the</u> parts catalog <u>comprising the parts list</u> and ~~corresponding~~ a disassembled illustration <u>of the product; said three dimensional data including assembly structure information of the product; and the parts list being a list of parts or partially assembled parts consisting the product and being defined by a user independently from the assembly structure information</u>; comprising:

a storage medium;

an instruction means stored in said storage medium for instructing said computer system to assign a reference numeral/symbol based on the parts list, to each of <u>partially assembled parts</u> ~~groups~~ belonging to an ~~initial~~ <u>basic</u> process of disassembly, and to each of <u>partially assembled parts</u> ~~groups~~ belonging to an intermediate process of disassembly, respectively;

an instruction means stored in said storage medium for instructing said computer system to build a disassembly algorithm based on the parts list; and

an instruction means stored in said storage medium for instructing said computer system to generate disassembly illustrations based on said disassembly algorithm, wherein <u>maximal disassembled states in</u> ~~minimum disassembly units of~~ the disassembly illustrations are <u>the</u> parts and ~~parts groups~~ <u>partially assembled parts</u> assigned with said reference numeral/symbols, and <u>to</u> ~~displaying~~ said reference numeral/symbol for each of the parts and ~~parts groups~~ <u>partially assembled parts</u> in the disassembly illustrations.

15. *(currently amended)*   A system for generating a parts catalog <u>of a product from three dimensional data and a parts list of the product; the</u> parts catalog <u>comprising the parts list</u> and ~~corresponding~~ a disassembled illustration <u>of the product; said three dimensional data including assembly structure information of the product; and the parts list being a list of parts or partially assembled parts</u>

<u>consisting the product and being defined by a user independently from the</u>

<u>assembly structure information</u>; comprising:

means for assigning a reference numeral/symbol based on the parts list, to

each of <u>partially assembled parts</u> ~~groups~~ belonging to an <u>basic</u> ~~initial~~ process of

disassembly, and to each of <u>partially assembled parts</u> ~~groups~~ belonging to an

intermediate process of disassembly, respectively;

means for building a disassembly algorithm based on the parts list; and

means for generating disassembly illustrations based on said disassembly

algorithm, wherein <u>maximal disassembled states in</u> ~~minimum disassembly units of~~

the disassembly illustrations are <u>the</u> parts and ~~parts groups~~ <u>partially assembled</u>

<u>parts</u> assigned with said reference numeral/symbols, and <u>to display</u> ~~displaying~~ said

reference numeral/symbol for each of the parts and ~~parts groups~~ <u>partially</u>

<u>assembled parts</u> in the disassembly illustrations.